



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/036,658

12/21/2001

Michael Brian Bonn

1777/39149

3742

7590

01/14/2005

Trexler, Bushnell, Giangiorgi,
Blackstone & Marr, Ltd.
36th Floor
105 West Adams Street
Chicago, IL 60603

EXAMINER

ELAHEE, MD S

ART UNIT

PAPER NUMBER

2645

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/036,658

Applicant(s)

BONN ET AL.

Examiner

Md S Elahee

Art Unit

2645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19 and 20 is/are allowed.
- 6) ☒ Claim(s) 1-18 and 21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Response to Amendment

1. This action is responsive to an amendment filed on 09/07/04. Claims 1-18 and 21 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-18 and 21 have been fully considered but they are not persuasive.

Regarding claims 1, 11 and 21, the applicant argues on page 8, lines 20 and 21 that as described, only one link, either the top link or the bottom link, is active at a time. The examiner disagrees with this argument. The applicant didn't claim that either two or multiple transmission links are active at a time. Thus the rejection of the claims in view of Forson and Suutari will remain.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 11-14, 16, 17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forson et al. (U.S. Patent No. 5,022,070) and in view of Suutari et al. (U.S. Patent No. 6,278,688).

Regarding claim 1, Forson teaches a hardware component (fig. 1).

Forson further teaches data link for connecting the interface to the telephone switching system (fig. 1; col.3, lines 41-58; 'data link' reads on the claim 'first connector').

Forson fails to teach second connector for connecting the interface to the telephone switching system. Suutari teaches backup channel (i.e., second connector) for connecting the interface to the Local Exchange (i.e., telephone switching system) (fig. 1a-2b; col.2, lines 40-42, col.3, lines 28-38). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Forson to allow second connector for connecting the interface to the telephone switching system as taught by Suutari. The motivation for the modification is to have doing so in order to provide the backup for the damaged channel.

Forson further teaches a data link for connecting the interface to the adjunct processor (fig. 1; col.3, lines 41-58; 'data link' reads on the claim 'third connector').

Forson further teaches a software component including one data transmission link between the telephone switching system and the adjunct processor (fig. 1; col.3, lines 41-68, col.4, lines 1-9).

Forson further fails to teach a software component including at least two active data transmission links between the telephone switching system and the adjunct processor. Suutari teaches a software component including at least two active signaling channels (i.e., data transmission links) between the Local Exchange (i.e., telephone switching system) and the Access Node (i.e., adjunct processor) (see fig. 2a, 2b; top, middle, lowest links between LE and AN; col.2, lines 54-59). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Forson to allow a software component including at least

Art Unit: 2645

two active data transmission links between the telephone switching system and the adjunct processor as taught by Suutari. The motivation for the modification is to have doing so in order to provide more channels to carry control signal as well as calling signal.

Regarding claims 2 and 12, Forson teaches that the software alternates the transmission of data messages among the links (col.3, lines 41-68, col.4, lines 1-9, 15-23).

Regarding claims 3 and 13, Forson fails to teach that if one of the at least two transmission links fails, the software transmits the data messages along a remaining number of the links. Suutari teaches that if one of the at least two transmission links fails, the software transmits the PSTN signaling (i.e., data messages) along a remaining number of the links (fig. 1a-2b; col., lines 35-42, col.3, lines 28-38). Thus, it would have been obvious to one of ordinary skill in the art to modify Forson to allow the software transmitting the data messages along a remaining number of the links in case of failure of the at least two links as taught by Suutari. The motivation for the modification is to have doing so in order to have a backup for the transmission of PSTN signaling.

Regarding claims 4 and 17, Forson teaches data messages are translated from API protocol to SMSI protocol (col.3, lines 58-62).

Regarding claims 5 and 14, Forson teaches that the software includes at least two device driver algorithms to filter erroneous frames from the data messages (col.2, lines 63-68, col.4, lines 1-9, col.7, lines 22-35, col.8, lines 9-16, 45-61, col.9, lines 3-8, 32-48).

Regarding claims 11 and 21, Forson teaches providing an interface, wherein the hardware of the interface includes at least a data link (i.e., 'first connector') for connecting the interface to

Art Unit: 2645

the telephone switching system and a data link (i.e., third connector) for connecting the interface to the adjunct processor (fig.1; col.3, lines 41-58).

Forson fails to teach second connector for connecting the interface to the telephone switching system. Suutari teaches backup channel (i.e., second connector) for connecting the interface to the Local Exchange (i.e., telephone switching system) (fig.1a-2b; col., lines 40-42, col.3, lines 28-38). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Forson to allow second connector for connecting the interface to the telephone switching system as taught by Suutari. The motivation for the modification is to have doing so in order to provide the backup for the damaged channel.

Forson further teaches transmitting the data messages from the telephone switching system and the adjunct processor using multiple voice links (fig.1; col.3, lines 41-58; 'voice links' reads on the claim 'active data transmission links').

5. Claims 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forson et al. (U.S. Patent No. 5,022,070) and in view of Suutari et al. (U.S. Patent No. 6,278,688) and further in view of Lin et al. (U.S. Pub. No. 2002/0156896).

Regarding claims 6 and 15, Forson in view of Suutari fails to teach that the software includes at least two protocol stack algorithms to validate the data messages. Lin teaches that the software includes at least two protocol stack algorithms to validate the data messages (page 2, paragraph 0026). Thus, it would have been obvious to one of ordinary skill in the art to modify Forson in view of Suutari to allow the software includes at least two protocol stack algorithms to validate the data messages as taught by Lin. The motivation for the modification is to have doing so in order to make confirmation that the data meets proper protocol.

Art Unit: 2645

6. Claims 7-10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forson et al. (U.S. Patent No. 5,022,070) and in view of Suutari et al. (U.S. Patent No. 6,278,688) and further in view of Larsson (U.S. Pub. No. 2002/0051425).

Regarding claim 7, Forson in view of Suutari fails to teach that the software includes a splitting task which receives messages from the at least two protocol stack algorithms. Larsson teaches that the software includes a splitting means which receives messages from the at least two protocol stack algorithms (page 3, paragraph 0039, page 6, paragraph 0064; 'splitting means' reads on the claim 'splitting task'). Thus, it would have been obvious to one of ordinary skill in the art to modify Forson in view of Suutari to allow the software including a splitting task which receives messages from the at least two protocol stack algorithms as taught by Larsson. The motivation for the modification is to have doing so in order to split the message packets into individual messages.

Regarding claim 8, Forson in view of Suutari fails to teach that the software includes a splitting task algorithm to split the data messages into subsets. Larsson teaches that the software includes a splitting means algorithm to split the data messages into subsets (page 3, paragraph 0039, page 6, paragraph 0064; 'splitting means' reads on the claim 'splitting task'). Thus, it would have been obvious to one of ordinary skill in the art to modify Forson in view of Suutari to allow the software including a splitting task algorithm to split the data messages into subsets as taught by Larsson. The motivation for the modification is to have doing so in order to split the message packets into individual messages.

Regarding claims 9 and 18, Forson in view of Suutari fails to teach that the software includes a combining task algorithm to combine data messages into sets. Larsson teaches that the

Art Unit: 2645

software includes a combining task algorithm to combine data messages into sets (page 7, paragraphs 0069, 0070). Thus, it would have been obvious to one of ordinary skill in the art to modify Forson in view of Suutari to allow the software including a combining task algorithm to combine data messages into sets as taught by Larsson. The motivation for the modification is to have doing so in order to combine individual messages into the message packets.

Regarding claim 10, Forson in view of Suutari fails to teach that the software includes a combining task algorithm which alternates transmission of data messages on at least two links. Larsson teaches that the software includes a combining task algorithm which alternates transmission of data messages on at least two links into sets (page 3, paragraph 0039, page 7, paragraphs 0069, 0070). Thus, it would have been obvious to one of ordinary skill in the art to modify Forson in view of Suutari to allow the software including a combining task algorithm which alternates transmission of data messages on at least two links as taught by Larsson. The motivation for the modification is to have doing so in order to combine individual messages into the message packets.

Reasons for Allowance

7. Claims 19 and 20 are allowed.
8. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 19, prior art fails to teach, transmitting a first data message set from the telephone switching system through a first port to a first device driver algorithm; transmitting a second data message set from the telephone switching system through a second port to a second device driver algorithm; transmitting the first data message set from the first device driver algorithm to a first protocol stack algorithm; transmitting the second data message set from the

Art Unit: 2645

second device driver algorithm to a second protocol stack algorithm; transmitting the first data message set from the first protocol stack algorithm to a splitting task algorithm; transmitting the second data message set from the second protocol stack algorithm to the splitting task algorithm; splitting the first data message set and the second data message set into data message subsets; transmitting the data message subsets an application task and translating the data message subsets into the second protocol. Claim 20 is dependent on claim 19.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lehto (U.S. Patent 6,798,749) teach Method and system for the management of an interface in a telecommunication system.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2645


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Md S Elahee whose telephone number is (703)305-4822. The examiner can normally be reached on Mon to Fri from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (703)305-4895. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M.E.

MD SHAFIUL ALAM ELAHEE
January 5, 2005


FAN TSANG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600